





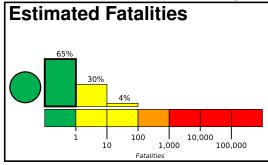
### **PAGER** Version 9

Created: 5 hours, 34 minutes after earthquake

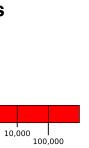
## M 4.5, 14 km SSW of Westley, CA

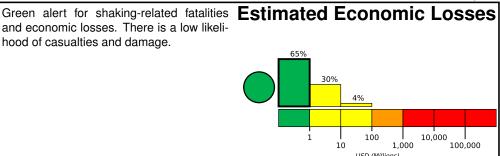
Origin Time: 2023-09-19 04:13:09 UTC (Mon 21:13:09 local) Location: 37.4733° N 121.2421° W Depth: 5.0 km

FOR TSUNAMI INFORMATION, SEE: tsunami.gov



and economic losses. There is a low likeli-





**Estimated Population Exposed to Earthquake Shaking** 

ESTIMATED POPULATION EXPOSURE (k=x1000)		2,766k*	12,725k	46k	0	0	0	0	0	0
ESTIMATED MODIFIED MERCALLI INTENSITY		I	11-111	IV	V	VI	VII	VIII	IX	X+
PERCEIVED SHAKING		Not felt	Weak	Light	Moderate	Strong	Very Strong	Severe	Violent	Extreme
POTENTIAL DAMAGE	Resistant Structures	None	None	None	V. Light	Light	Moderate	Mod./Heavy	Heavy	V. Heavy
	Vulnerable Structures	None	None	None	Light	Moderate	Mod./Heavy	Heavy	V. Heavy	V. Heavy

<sup>\*</sup>Estimated exposure only includes population within the map area.

#### Population Exposure

# Structures

population per 1 sq. km from Landscan

Overall, the population in this region resides in structures that are resistant to earthquake shaking, though vulnerable structures exist. The predominant vulnerable building types are unreinforced brick masonry and reinforced masonry construction.

## **Historical Earthquakes**

Date	Dist.	Mag.	Max	Shaking	
(UTC)	(km)		MMI(#)	Deaths	
2003-12-22	206	6.6	VI(8k)	2	
1980-01-24	50	5.8	VII(35k)	1	
1989-10-18	61	6.9	VIII(109k)	62	

Recent earthquakes in this area have caused secondary hazards such as landslides and liquefaction that might have contributed to losses.

## Selected City Exposure

from GeoNames.org **MMI** City Population IV Patterson 20k IV Gustine 6k IV Newman 10k Ш Riverdale Park 1k Ш Hollister 35k Ш 6k West Modesto Ш San Jose 946k Ш 805k San Francisco Ш Fresno 495k Ш Sacramento 466k **Carson City** 55k

bold cities appear on map.

(k = x1000)

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PAGER content is automatically generated, and only considers losses due to structural damage. Limitations of input data, shaking estimates, and loss models may add uncertainty.